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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/558,575 04/26/00 STROBEL

W P48-1229-1

EXAMINER

QM32/0727

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Application/Control Number: 09/558,575

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Paper No. 12

Application Number: 09/558,575

Filing Date: April 26, 2000

Appellant(s): STROBEL ET AL.

Daniel G. Mackas
For Appellant

EXAMINER'S ANSWER

This is in response to appellant's brief on appeal
filed 6/11/01.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

No amendment after final has been filed.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

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(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

The rejection of claims 30-32 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

(10) Grounds of Rejection

This examiner's answer does not contain any new ground of rejection.

The following ground(s) of rejection are applicable to the appealed claims:

Claims 30-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Arnold (4,662,803)

Arnold discloses the claimed invention comprising: as shown in Fig. 1, a first cutting portion(42) defining a first outer diameter and second cutting portion(18) defining a second outer diameter extending from and coaxial with the first cutting portion; and wherein the second cutting portion(18) defines a generally cylindrical, outer peripheral surface; each of the first cutting portion(42) and second cutting portion(18) being defined in part by at least two helical cutting flutes extending longitudinally shown in Fig. 1.

Note Arnold also discloses a tapered section(44); and the first cutting portion(42) and second cutting portion(18) being generally cylindrical shown in Fig. 1.

(11) Response to Argument

Appellant's arguments in the brief filed 6/11/01 have been fully considered but they are not deemed to be persuasive.

Appellants argue that Arnold is directed to a reamer which enlarges or shapes previously formed holes, but is not used to generate holes; and the present invention is directed to a rotary cutting tool for generating slots. Examiner realizes the function of a reamer. However, broadly speaking, either enlarging or shaping a formed holes should be considered to generate a hole. Besides, a hole is considered as a slot.

Appellants argue that the countersink cutter 44 defined on the cylindrical body 42 is not helical, but rather is aligned with the longitudinal axis of the reamer; and helical flutes are not defined on each of the cutting portions 18 and 42 of the (Arnold's) reamer. Examiner disagrees with Appellants. Based on the WEBSTER'S II dictionary, the definition of "helical" is "of or shaped like a helix", and the definition of "helix" is "a three-dimensional curve that lies on a cylinder or cone and cuts the elements at a constant angle", see attached. Fig. 1 of Arnold's reference clearly shows the countersink cutter 44 defined on the cylindrical body 42 is helical and it is not aligned with the longitudinal axis of the reamer; Fig. 1 also

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clearly shows each of the first cutting portion(42) and second cutting portion(18) being defined in part by at least two helical cutting flutes extending longitudinally.

Appellants argue that the it cannot be maintained that claim 30 is anticipated by Arnold. Examiner disagrees with Appellants. As set forth in the rejections above, Arnold discloses all the limitations described in claim 30. Arnold clearly anticipates the claimed invention.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



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hog, **hög** n. [ME *hedge hogge*.] 1. Any of several mammals of the family Erinaceidae, and esp. of the eared hedgehog, erect spines on the back and roll protection. 2. Any of several spiny animals similar

hop vi. **-hopped**, **-hopping**, **-hope**. To fly on the ground, rising above objects as they appear, as in **edge-hopper** n.

1. A plant of the genus *Gratiola*, growing in damp small whitish or yellow flowers.

2. A row of bushes, shrubs, or trees forming a

hik adj. [Gk. *hedonikos* < *hedonē*, pleasure.] or characterized by pleasure. 2. Of or pertaining to hedonism. —**he-don-is-ti-cal-ly** adv.

hik n. (sing. in number). 1. Psychol. The study of pleasant sensations. 2. Philos. A branch of ethics dealing with pleasure to duty.

hik n. (sing. in number). [Gk. *hedonē*, pleasure + *-ism*.] A doctrine of pleasure. 2. The ethical doctrine that pleasure or has pleasant consequences is intrinsically good. The doctrine that behavior is motivated by pleasure and the avoidance of pain.

hik n. One who holds that pleasure is the chief good. —**he-don-is-ti-cal-ly** adv.

hik n. Having a given kind or number of sur-

hedron < *hedra*, base.] A crystal or geometric kind or number of surfaces <heptahedron> (hēp-tē-jē-bēz) pl. n. [Coined by Billy De Beck comic strip Barney Google.] Slang. A feeling of

hedonism. —**hedon-is-ti-cal-ly** adv.

hed, **heed**, **heeds**. [ME *heden* < OE *hēdan*.] To pay attention. —**heed-ful-ly** adv.

heed n. Paying close attention. —**heed-ful-ly** adv.

heed n. Paying little attention. —**heed-ful-ly** adv.

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Heidelberg man (hīd'el-burg) n. An extinct early member of the human species, a form of *Homo erectus*, known primarily from a fossil jawbone found near Heidelberg, West Germany, in 1907.

heifer (hē'fēr) n. [ME < OE *hēahfore*.] A young cow, esp. one that has not yet given birth to a calf.

heigh-ho (hē'ho, hā') interj. —Used to express fatigue, boredom, disappointment, or mild surprise.

height (hit) n. [ME < OE *hēahō*.] 1. The uppermost or highest point: SUMMIT. 2. a. The highest or most advanced degree: ZENITH <at the height of one's popularity> b. The point of highest intensity: CLIMAX <the height of confusion> 3. a. The distance from the base to the top of something. b. Elevation above a given level: ALTITUDE. 4. a. The condition or attribute of being high or tall. b. Stature, esp. of the human body. 5. a. An eminence, as a mountain or hill. b. A high point, position, or degree. 6. Obs. High rank, estate, or degree.

heighten (hīt'n) vt. & vi. **-ened**, **-ening**, **-ens**. 1. To increase or cause to increase in quantity or degree. 2. To make or become high or higher. —**height-en-er** n.

height-to-paper (hīt'pā-pər) n. The height of type from foot to face, standardized at 0.9186 inch or 2.296 centimeters.

Heimlich maneuver (hīm'likh, -lik') n. [After Henry J. Heimlich, 20th-cent. American surgeon.] A maneuver designed to dislodge an object, as food, from a choking person's windpipe in which the victim is clasped from behind, a closed fist is placed below the rib cage, and air is forced out of the lungs with a hard upward thrust.

heinous (hē'nəs) adj. [ME < OFr. *hainos* < *haine*, hatred < *hair*, to hate, of Germanic orig.] Grossly wicked or deserving strong condemnation: ABOMINABLE. —**heinous-ly** adv. —**heinous-ness** n.

heir (ār) n. [ME < AN < Lat. *heres*.] 1. Law. One who inherits or is entitled by law or by the terms of a will to inherit the estate of another. 2. One who succeeds or is in line to succeed to a hereditary rank, title, or office. 3. One who receives or is expected to receive an endowment or heritage, as of talent, from a parent or predecessor.

heir apparent n., pl. **heirs apparent**. Law. An heir whose right to inheritance is indefeasible by law if he survives his ancestor.

heirloom (ār'lōm) n. [ME *heirloom* < *heir*, heir + *lome*, implement.] 1. A valued family possession handed down from generation to generation. 2. Law. An article of personal property included in an inherited estate.

heir presumptive n., pl. **heirs presumptive**. Law. An heir whose right to inheritance can be defeated by the birth of a closer relative.

heirship (ār'ship) n. 1. The condition of being an heir. 2. The right to inheritance: HEIRLOOM.

heist (hīst) [Alteration of *HOIST*.] Slang. —vt. **heist-ed**, **heist-ing**. 1. To perpetrate a robbery on. 2. To steal. —n. A robbery.

Hel (hēl) n. [ON.] Norse Myth. 1. The daughter of Loki and the goddess of death. 2. The underworld of the dead not killed in battle.

HeLa cell (hē'lə) n. [After He(nrietta) La(cks), who donated such cells in 1951.] Any of the human cancer cells of a continuously cultured strain used in biomedical research.

held (hēld) v. pt. & p.p. of **HOLD**.

helden-te-nor also **Helden-te-nor** (hēldən-tə-nōr', -nōr') n. [G. *Held*, hero + *Tenor*, tenor.] A tenor with a strikingly dramatic or brilliant voice that is suitable for heroic roles, as those in Wagnerian opera.

Hel-en of Troy (hē'lən) n. [Gk. *Helenē*.] Gk. Myth. The daughter of Zeus and Leda and wife of Menelaus whose abduction by Paris caused the Trojan War.

heli- pref. [**HELICOPTER**.] Helicopter <heliport> <helipad> —**heli-** pref. var. of **HELICO**.

heli-a-cal (hē'lī-ə-kəl) adj. [Lat. *heliacus* < Gk. *hēliakos* < *hēlios*, sun.] Of or relating to the sun, esp. rising and setting with the sun, as a star. —**heli-a-cal-ly** adv.

heli- pref. var. of **HELICO**.

heli-cal (hē'lī-kəl, hē'lī-) adj. 1. Of or shaped like a helix. 2. Having a shape approx. like that of a helix. —**heli-cal-ly** adv.

helices (hē'lī-sēz, hē'lī-) n. var. pl. of **HELIX**.

helicity (hē-lis'itē, hē-) n. The component of the spin of a particle along its direction of motion.

helico- or **helic-** pref. [Gk. *hēliko-* < *hēlix*, spiral.] Helix: spiral <helicity>

heli-coid (hē'lī-kōid, hē'lī-) adj. [Gk. *hēlikoeidēs*: *hēlix*, spiral + *-oeidēs*, -oid.] Arranged in or having a shape approx. like that of a flattened spiral. —n. Math. A surface generated by a plane curve or a twisted curve that is rotated about a linear axis and at the same time is translated in the direction of the axis so that the two rates have a constant ratio.

heli-con (hē'lī-kōn, -kən) n. [Prob. < Gk. *hēlix*, *hēlik*, spiral.] A large circular brass tuba that encircles the player's shoulder.

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helicon

heli-copter (hē'lī-kōp'tər) n. [Fr. *hélicoptère*: Gk. *hēlix*, spiral + Gk. *pteron*, wing.] An aircraft deriving its lift from blades that rotate about an approx. vertical central axis. —vi. & vt. **-tered**, **-ter-ing**, **-ters**. To travel or convey by helicopter.

heli- or **heli-** pref. [**HELIO**, sun.] Sun <heliogram> —**heli-** or **heli-** pref. [**HELIO**, sun.] Sun <heliogram>

heli-o-centric (hē'lē-ō-sēn'trīk) also **heli-o-centri-cal** (trī-kəl) adj. 1. Relative or referred to the sun. 2. Having the sun as a center. —**heli-o-centric-ity** (sēn'trīs'tē) n.

heli-o-gram (hē'lē-ō-grām) n. A message sent by heliograph.

heli-o-graph (hē'lē-ō-gráf) n. 1. An apparatus once used to photograph the sun. 2. A signaling apparatus that reflects sunlight with a movable mirror to flash coded messages. —vt. & vi. **-graphed**, **-graph-ing**, **-graphs**. To signal or communicate by heliograph.

heli-o-graph-er (ō-gráf-ər) n. —**heli-o-graph-ic** adj. —**heli-o-graph-y** n.

heli-o-gravure (hē'lē-ō-grāv-yūr) n. Photogravure.

heli-o-meter (hē'lē-ō-mē-tər) n. A telescope for measuring small angular distances between celestial bodies. —**heli-o-met-ric** (ō-mē'trīk), **heli-o-met-ric-al** adj. —**heli-o-met-ri-cal-ly** adv. —**heli-o-met-ry** n.

Helios (hē'lē-ōs) n. [Gk. *Hēlios* < *hēlios*, sun.] Gk. Myth. The sun god, depicted as driving a chariot across the sky from east to west.

heli-o-stat (hē'lē-ō-stāt) n. An instrument in which a mirror is automatically moved so as to reflect sunlight in a constant direction.

heli-o-tax-is (hē'lē-ō-tāk'sis) n. Biol. The movement of an organism in response to sunlight.

heli-o-ther-apy (hē'lē-ō-thēr-ə-pē) n. Med. Therapy involving exposure to sunlight.

heli-o-trope (hē'lī-ō-trōp) n. [Lat. *heliotropium* < Gk. *hēliotropion*: *hēlios*, sun + *tropos*, turn.] 1. A South American plant of the genus *Heliotropium*, esp. *H. arborescens*, with small, fragrant purple flowers. 2. The garden heliotrope. 3. A plant that turns toward the sun. 4. Bloodstone. 5. A moderate, light, or brilliant violet to moderate or deep reddish purple. —**heli-o-trope** adj.

heli-o-tropism (hē'lī-ō-trōp'iz-m, hē'lē-ō-trōp'iz-m) n. Piperonal.

heli-o-tropism (hē'lī-ō-trōp'iz-m, hē'lē-ō-trōp'iz-m) n. Growth or movement of an organism toward or away from sunlight. —**heli-o-trop'ic** (ō-trōp'īk) adj. —**heli-o-trop'ic-ally** adv.

heli-o-type (hē'lē-ō-tīp) n. 1. A photomechanically produced plate for pictures or type made by exposing a gelatin film under a negative, hardening it with chrome alum, and printing from it directly. 2. also **heli-o-type** (tīp) The process of producing a heliotype. —vt. **-typed**, **-typing**, **-types**. To produce a heliotype of. —**heli-o-type** (tīp'īk) adj.

heli-o-zo-an (hē'lē-ō-zō'ən) n. Any of various aquatic protozoans of the order Heliozoa, with numerous stiff, radiating pseudopodia. —**heli-o-zoic** (zō'īk) adj.

heli-pad (hē'lē-pād) n. A heliport.

heli-port (hē'lē-pōrt, -pōrt) n. A place for helicopters to land and take off.

heli-stop (hē'lī-stōp) n. A heliport.

heli-um (hē'lē-əm) n. [Nlat. < Gk. *hēlios*, sun (so called because its existence was deduced from the solar spectrum).] Symbol **He** A colorless, odorless, tasteless inert gaseous element used to provide lift for balloons and as an inert component of various artificial atmospheres; atomic number 2; atomic weight 4.0026.

helium I n. Liquid helium existing as a normal fluid between the superfluid transition point of approx. 2.178°K at 1 atmosphere pressure and its boiling point of 4.2°K.

helium II n. Liquid helium existing as a superfluid below the transition point of approx. 2.178°K at 1 atmosphere and having extremely low viscosity and high thermal conductivity.

helix (hē'lik) n., pl. **-lices** or **heli-ces** (hē'lī-sēz, hē'lī-) [Lat. < Gk.] 1. Math. A three-dimensional curve that lies on a cylinder or cone and cuts the elements at a constant angle. 2. A spiral form or structure. 3. Anat. The folded rim of skin and cartilage around the outer ear. 4. A volute on a Corinthian or Ionic capital.

hell (hēl) n. [ME *helle* < OE.] 1. The abode of the dead in ancient traditions: UNDERWORLD. 2. **often Hell**. The abode of devils and condemned souls in many religions. 3. A place or situation of evil, misery, discord, or destruction. 4. Informal. a. Anguish: torment <They put us through hell> b. One that causes anguish, trouble, or annoyance <The boss is hell when we're behind schedule> 5. **Heil Christian Science**. Mortal belief: sin or error. 6. Informal. A

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